User manual
DMX
SwitchGate DIN

SGD-1-8RD, SGD-1-8R16CD
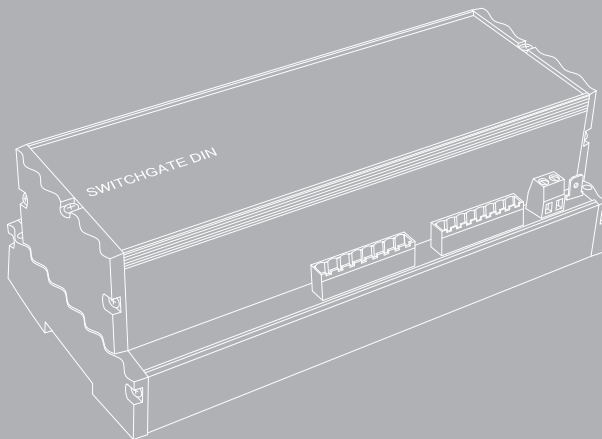
SWITCHGATE DIN

SUNDRAX
electronics

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Appearance
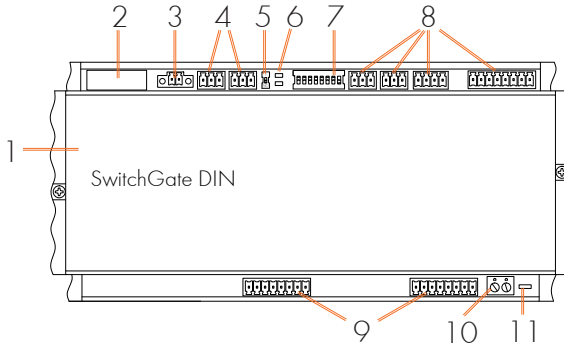
Pic.1 Location of device interfaces and indicators

1	Case	5	DMX terminator	9	100-230 V inputs
2	Fuse	6	LED indicators	10	Neutral terminal
3	Power input	7	Address switchers	11	Ground terminal
4	DMX connector	8	Relay outputs		

Specifications

Relay outputs	8 (6 closing, 2 changeover)
Voltage control inputs	0 or 16
MAX voltage and current at outputs	250 V, 5 A
MAX voltage at inputs	250 V
Interfaces supported	DMX512, RDM
Setup	RDM, DIP-switcher
Power supply	~90-270 V, 50/60 Hz
Fuse	0,5 A
Working temperatures	-40...+70°C
Ingress protection	IP 20
Dimensions and mounting	210 x 105 x 75 mm on DIN-rail

Safe operation

To ensure safe and reliable operation of the devices, please observe the following requirements:
- Use the device only for its intended purpose;
- Do not use devices that show signs of malfunctioning;
- Avoid strong physical impacts on the device;
- Protect devices and cables from contact with moisture or other corrosive liquids;

Whenever a fault is detected in the device, please contact the manufacturer.

General information

SwitchGate DIN is DMX switcher with enhanced functionality. Able to switch 8 power circuits on and off by DMX commands, device provides a diagnostic feedback from up to 16 AC inputs via standard RDM communication.

Mounted on standard DIN-rail, SwitchGate operates in power networks without any intermediate components.

Key features:

- Full galvanic isolation DMX interface;
- 16 independent inputs;
- 8 independent relay outputs;
- Built-in power supply.

Installation

Before mounting and power up, it is necessary to verify protective earthing and cable connections.

1. Ensure the device has no damage caused by transportation.

2. Install the device on DIN-rail.

3. Connect DMX512 signals to device's DMX512 «IN» connector. If necessary connect DMX512 «OUT» connector to next device in the chain.

4. Connect lighting control circuits to the connector «OUTPUTS».

5. Connect necessary voltage control points to the connector «INPUTS~230V». Connect neutral wire to neutral terminal of the device.

6. Connect the grounding circuit to the ground terminal.

7. Use DIP-switcher to set up required DMX address. The address may be set in a range from 1 to 504 with step 2. The address is set in the binary form (where 0 is OFF, and 1- is ON), the MSB corresponds to section 8 and LSB corresponds to section 1. Example addresses from 1 to 29 given in the table:

DMX address	Switchers position	DMX address	Switchers position	DMX address	Switchers position
1	00000000	11	00000101	21	00001010
3	00000001	13	00000110	23	00001011
5	00000010	15	00000111	25	00001100
7	00000011	17	00001000	27	00001101
9	00000100	19	00001001	29	00001110

8. Apply AC voltage to power connector «230 V».

9. Ensure that device's LEDs «ON» and «DMX» are lit. If «DMX» LED is flashing, DMX512 signal on input absent or inappropriate.

RDM

Device supports DMX address assignment and inputs status reading via RDM.

To select RDM address assignment mode, set all DIP-switcher sections to ON. In other cases the actual DMX address will be indicated in RDM parameters anyway.

16 AC inputs are shown as 16 sensors in device's RDM profile, with values 0 or 1 indicating current state of corresponding input.
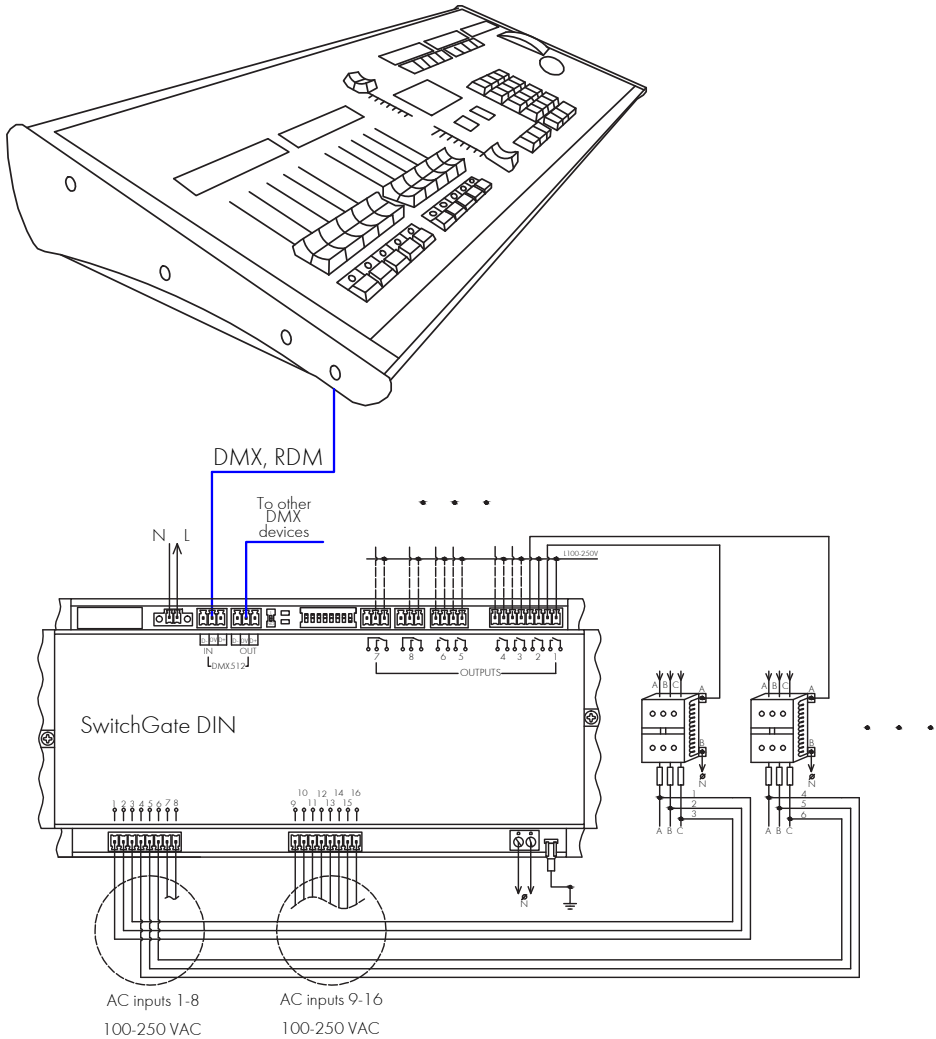
Technical maintenance

Maintenance the device, search and troubleshooting should be performed by service personnel. The device should be free from dirt, dents, connecting cables and wires must be intact and securely fastened.

Transport and storage

The device, packaged in containers should be stored in warehouses under conditions:

- temperatures from -50 ^{0}C to +80 ^{0}C;
- relative humidity 95% ;
- the vapor acids, alkalis and other aggressive substances is not allowed.

Connection scheme

DMX, RDM

To other
DMX
devices

N   L

L100-250V

IN   OUT
DMX512

8   6   5   4   3   2   1
OUTPUTS

SwitchGate DIN

A B C   A   A B C   A

B   B
N   N

1   4
2   5
3   6
A B C   A B C

1 2 3 4 5 6 7 8   10 12 14 16
                    9   11 13 15

N

AC inputs 1-8   AC inputs 9-16

100-250 VAC   100-250 VAC